

Providing Safe Drinking Water in America

1996 National Public Water System Annual Compliance Report and Update on Implementation of the 1996 Safe Drinking Water Act Amendments

Section 1- Executive Summary

Safe drinking water is a cornerstone of public health protection. One of the major goals of the Environmental Protection Agency (EPA) is to ensure that the drinking water of all Americans is safe. This report describes how well we are meeting that goal, the steps we need to take to improve the data that allow us to measure that goal, and the activities under way that will allow us to meet the goal more quickly.

The most important news is good. The nation's drinking water is generally safe. In 1996, the vast majority of people in the nation received water from systems that had no reported violations of maximum contaminant levels (MCLs) and treatment technique requirements or significant monitoring and reporting requirements. Further good news is that, since the passage of the Safe Drinking Water Act (SDWA) Amendments of 1996, EPA and its public and private partners have worked vigorously to develop and begin to use many new tools to enhance the quality of the nation's drinking water. However, in gathering and analyzing the data to provide both specific compliance and general public information, EPA and its partners have realized that we have questions about the quality of some of the data contained in our Safe Drinking Water Information System. Nonetheless, when viewed in the aggregate, this data presents an overall picture of public water systems (PWSs) compliance on a national basis. We present here the general findings concerning the compliance status of PWSs and make recommendations to improve compliance as well as to improve the quality of the data.

This report on Public Water System (PWS) compliance is mandated by the 1996 SDWA Amendments and provides information on the compliance status of PWSs, including PWSs located on Indian reservations, for calendar year 1996. In 1993, the Administration proposed sweeping revisions to the SDWA to supply many of the ingredients that are vital to providing safe drinking water, but were lacking in the law at that time. In August 1996, Congress adopted and President Clinton signed into law amendments to the SDWA that provide these new ingredients. Accordingly, this report also discusses the variety of activities that the Agency has undertaken in the last two years since the passage of the 1996 Amendments to capitalize on the new opportunities and authorities provided by those Amendments including: promoting public information and involvement; providing tools to States, Tribes and water systems to improve compliance; helping small systems provide safe drinking water; focusing safety standards on the most serious health risks; and exercising new enforcement authorities and undertaking compliance assistance activities.

This national report is an annual requirement for EPA. Subsequent reports will reflect new actions that EPA and its partners have taken to improve compliance and data quality since 1996.

ASSESSING PWS COMPLIANCE WITH DRINKING WATER STANDARDS

The public and water supply managers must know whether drinking water systems are in compliance with the drinking water standards mandated by law. PWSs are responsible for reporting their monitoring results to the states. The 1996 SDWA Amendments require that states prepare annual reports on the compliance of PWSs within their state and make summaries available to the public and that EPA produce an annual national compliance report. This first report presents compliance information for 1996 using state and Tribal data from EPA's Safe Drinking Water Information System (SDWIS/FED) and discusses ways to improve both the data and the overall compliance picture. SDWIS/FED is an exceptions-based database, meaning that only violations or instances of non-compliance are recorded. The information presented in this report is a summary of data provided to the Agency through SDWIS/FED and includes information on health-based violations (i.e., MCL, treatment technique) and significant monitoring and reporting violations.

An MCL is the maximum permissible level of a contaminant in water which is delivered to any user of a public water system. The MCL is set as close to the level where there are no known or anticipated health effects as is feasible with the use of the best technology or treatment techniques. EPA sets treatment techniques, instead of MCLs, where it is infeasible to monitor and ascertain the level of a particular contaminant. The required treatment techniques are designed to prevent known or anticipated health effects.

For this report, a significant monitoring and reporting violation occurs when a PWS collects none of the samples or submits none of the reports required by a particular regulatory provision, or met the significant noncompliance definition for the Lead and Copper Rule or the Surface Water Treatment Rule (*see* Appendix A). EPA is concerned with these violations because without the required monitoring, EPA and States do not know the quality of the water being delivered to consumers. Thus, people may be at risk without knowing it and appropriate steps to safeguard public health cannot be taken by the States or EPA or by the consumers themselves.

In their reports, States also presented EPA with compliance data for which many used data from their own information systems. EPA has compiled summaries of the state data in Appendix B.

Fifty-one of 56 states, Commonwealths, and Territories prepared compliance reports. EPA compiled compliance information for American Samoa, Guam, and the Northern Mariana Islands. EPA also prepared reports for States and Tribes that do not have primary enforcement responsibility for drinking water programs, including Wyoming, Washington, DC, and water systems located on Indian reservations.

Results In Brief

In 1996, the vast majority of people in the nation received water from systems that had no reported violations of MCL and treatment technique requirements or significant monitoring and reporting requirements. The report looks at the compliance status of all types of public water systems; however, much of the report focuses on community water systems because the majority of the population obtains drinking water from community water systems. Within the limitations of data quality, as discussed below, some of the most notable findings are:

The nation's drinking water is generally safe -- 86 % of the country's *population* served by community water systems drank water from systems that reported no violations of any health-based drinking water standards.

- 94% of all *public water systems* had no reported MCL or treatment technique violations.
- 91% of *community water systems* had no reported MCL or treatment technique violations. Violations were primarily of the Total Coliform Rule and Surface Water Treatment Rule - rules which protect against microbiological contamination of drinking water.
- 94% of *non-transient non-community water systems* had no reported MCL or treatment technique violations. Most of the systems with a reported violation violated the Total Coliform Rule.
- 95% of *transient non-community water systems* had no reported MCL or treatment technique violations. As with non-transient non-community water systems, most of the systems violated the Total Coliform Rule.

Nationwide, most violations are of significant monitoring and reporting requirements.

- In 1996, there were 141,617 MCL, treatment technique, and significant monitoring and reporting violations reported by 47,918 of the 170,942 public water systems in the nation. 87% were for violations of significant monitoring and reporting requirements. 13% were for violations of MCL and treatment technique requirements.
- 76% of all *public water systems* had no reported violations of significant monitoring and reporting requirements.
- 72% of *community water systems* had no reported violations of significant monitoring and reporting requirements. The Lead and Copper Rule and Total Coliform Rule accounted for most of the systems with violations..
- 66% of *non-transient non-community water systems* had no reported violation of significant monitoring and reporting requirements. The Lead and Copper Rule and Total Coliform Rule accounted for most of the systems with violations.
- 80% of *transient non-community water systems* had no reported violation of

significant monitoring and reporting requirements. The Total Coliform Rule and Nitrate Rule accounted for most of the systems with violations.

Although the number of large *systems* with a reported violation is relatively small, the *population* that is served by these systems can be large.

- 9% of the 5,151 *community water systems* with an MCL or treatment technique violations were for large systems. These systems served 30 million people. The Surface Water Treatment Rule, Total Coliform Rule, or Lead and Copper Rule are the rules most frequently violated by large water systems.
- 2% of the 15,182 *community water systems* with a significant monitoring and reporting violation were large systems. These systems served 17 million people. The rules pertaining to total coliform, surface water treatment, organic chemicals, and nitrate accounted for most of these systems with violations.

Most violations are reported in small water systems that serve fewer than 3,300 people.

- Small systems comprised 96% of the 15,182 community water systems with a significant monitoring and reporting violation. These systems served 5.0 million people.
- Small systems comprised 82% of the 5,151 community water systems with an MCL and treatment technique violation. These systems served 2.3 million people.
- Virtually all of the non-transient and transient non-community water systems are small, therefore, most violations for these system types occurred in small systems.

Approximately 10% of public water systems located on Indian reservations had a reported violation of an MCL or treatment technique requirement. Most violations were for significant monitoring and reporting violations which might prevent other MCL and treatment technique violations from being detected.

- 45% of the 920 public water systems on Indian reservations reported a violation. 75% of the systems with a violation serve fewer than 500 people.
- The majority of violations (97%) were of significant monitoring and reporting requirements, primarily for the Total Coliform Rule and chemical contaminants. The Total Coliform Rule also accounted for most of the reported health-based violations.

There were no reported violations of variances and exemptions in 1996

- Very few of the states issued variances and exemptions in 1996.

Compliance data in many individual state databases differs from that reported to the Federal database.

- When viewed in the aggregate, comparison of national data from SDWIS/FED with that totaled from all individual state reports showed 19% more violations in state reports than in SDWIS/FED, most of which could be accounted for by differences in violation reporting of significant monitoring and reporting requirements for chemical contaminants..
- A state-by-state comparison of SDWIS/FED data with that included in state compliance reports, most of which were developed using information from a state's own data system, revealed differences, with both over- and under-reporting by states into SDWIS/FED.
- EPA also discovered problems with EPA Regional reporting of data for PWSs on Indian reservations into SDWIS/FED.

Although the data show that the nation's drinking water is generally safe, more work needs to be done to improve compliance in specific areas and to improve the quality of the data.

Recommendations to improve both compliance and data quality are presented at the end of this summary.

ACTIVITIES UNDERWAY TO IMPLEMENT THE SDWA AMENDMENTS OF 1996

The Clinton Administration has always recognized that many tools and resources are essential to ensure that Americans have drinking water that meets all health standards. The SDWA Amendments of 1996 provided many new authorities to enable EPA to more quickly meet its goal of safe drinking water. Now, two years after passage of the 1996 Amendments, EPA has exercised these authorities and finalized every product required in the law to date and has done so with maximum stakeholder involvement. This stakeholder participation included more than 100 public meetings, public review and comment of documents, and the help of the National Drinking Water Advisory Council and its associated working groups.

Promoting Public Information and Involvement

The public has a right to know what is in its drinking water and to participate in decisions affecting that drinking water. The 1996 Amendments include a strong and pervasive ethic of public information and involvement, and in this second year of implementing the Amendments, EPA and its partners have produced major tools and undertaken a variety of activities to ensure that the public is well informed.

- **Consumer Confidence Reports:** Consumer confidence reports are the centerpiece of the right-to-know provisions in SDWA. In August 1998, EPA finalized a rule to require drinking water systems to provide annual reports to their customers on the state of their drinking water supply. The information contained in these reports will enable

Consumer Confidence Reports will provide Americans with annual snapshots of their drinking water supply.

Americans to make practical, knowledgeable decisions about their health and their environment. The reports also provide a way for the public to get more information about other provisions required by the 1996 Amendments such as assessments of drinking water source quality.

Each report must provide consumers with the following fundamental information about their drinking water: the source of the water; a brief summary of its susceptibility to contamination (based on assessments of drinking water source quality that states will complete over the next five years); the level (or range of levels) of any contaminant found in the drinking water, compared with EPA's health-based standard; the likely source of that contaminant in the local drinking water supply; the potential health effects of any contaminant detected in violation of an EPA health standard; an accounting of any actions a system takes to restore safe drinking water; an educational statement for vulnerable populations, such as children, about avoiding certain contaminants; educational information on nitrate, arsenic, or lead in areas where these contaminants are detected at levels more than 50% above EPA's standard; and phone numbers for additional sources of information, including that of the water system and EPA's Safe Drinking Water Hotline.

- **Ensuring Public Access to Additional Information:** EPA is acting to ensure that new public information tools are made available to the public. This year, EPA worked with states on ways to make the results of their up-coming source water assessments available to the public, and has formed a Public Right-to-Know working group of the National Drinking Water Advisory Council to discuss how to make drinking water information available to the public, and how to involve them in making decisions with that information.
- **Using the Internet to Increase Public Access:** EPA has been working over the past year to make drinking water information available to the public via the Internet (<http://www.epa.gov/safewater>). EPA has created and will expand a geographic information site where consumers will be able to get information about their water, including their local drinking water supply. This will include information on violations of drinking water standards, state compliance reports, water system consumer confidence reports, and state drinking water information and contacts.
- **Preparing for Greater Public Involvement:** In its effort to develop more effective and durable policies, EPA has continued to uphold the law's ethic of public involvement in its decision-making processes by holding public meetings and providing an opportunity for public review of draft documents. By maintaining this high level of public involvement, resulting in consensus building whenever possible, EPA is demonstrating on a national level the benefits of the types of public involvement that the 1996 SDWA Amendments also specify extensively for states. While SDWA provides states with flexibility and substantial federal funding to meet the challenging task of building several important new programs, it also adds a public participation framework to enable states to involve their residents in, and strengthen the

substantive content of, their efforts.

Over the past two years, as EPA has worked closely with states to provide guidance and implement programs, we have also worked to advance statutorily required public involvement in key areas such as: state decisions on the use of the Drinking Water State Revolving Fund for projects and programs; development and implementation of state source water assessment programs; the framing of state programs to strengthen the technical, financial, and managerial capacity of water systems; and in state consideration of variance and exemption requests.

Providing Tools to States, Tribes, and Water Systems to Improve Compliance

The 1996 SDWA Amendments gave the nation a new approach to drinking water protection which focuses attention on the highest public health priorities. This includes a holistic approach to prevention and protection, an emphasis on the public's right-to-know, and a series of building blocks for states and water suppliers that can help in implementation. Two years after passage of the Amendments, most of these building blocks are in place. These activities will assist EPA and the states as they work to assure compliance with drinking water standards.

- **Drinking Water State Revolving Fund (DWSRF):** The 1996 Amendments created the DWSRF to enable states to help water systems finance infrastructure improvements that are needed to solve compliance and public health problems. States can also use these funds to help systems protect their source water and improve water system management. Congress has appropriated \$2 billion for the DWSRF through FY'98. By the end of FY'98, every state will have a DWSRF program approved by EPA, and will have received at least its first commitment of funds ("capitalization grant").
- **Capacity Development:** Capacity refers to the technical, financial and managerial capability of a water system to plan for, achieve, and maintain compliance with drinking water standards. Capacity development is a State effort to help drinking water systems improve their finances, management, infrastructure, and operations so they can provide safe drinking water consistently, reliably, and cost-effectively. Many small drinking water systems have difficulty complying with some of the complex provisions of the SDWA because their capacity is often constrained by their limited economies of scale. The new SDWA has several features with great potential to increase system capacity, and thereby correct and prevent noncompliance. In August 1998, EPA released guidance and information to help states work together with water systems to carry out new capacity development provisions from the law, including a requirement that states have authority to prevent the formation of new public water systems that lack the capability to operate and manage a drinking water system. States must also implement a strategy to help existing systems develop the capability to operate and maintain their system and ensure long-term compliance.
- **Water System Operator Certification:** Operator competency is critical to the protection of

public health and maintenance of safe, effective, and reliable water treatment plants and distribution lines. In February 1998, EPA released information for states on recommended operator certification requirements, developed through a partnership with states, water systems, and the public. By February 1999, EPA will issue final guidelines for states to use in making changes to their operation certification programs.

- **Source Water Protection:** The first step in a multiple barrier approach to drinking water protection is preventing contamination of drinking water sources. This avoids the need to pay for costly treatment to remove contamination after it occurs. In August 1997, EPA issued a source water assessment and protection guidance for states to use to complete source water assessments for their public water systems. States, water systems, and the public can work together using federal funding to protect the highest priority sources identified in the assessments. During this past year, states have been working diligently to prepare their assessment programs, which are due to EPA by February 1999.
- **Proposed Regulation for Underground Injection Control Class V Wells:** Some shallow waste disposal wells pose a threat to underground sources of drinking water. On July 17, 1998 EPA issued a proposal, for public comment, in the *Federal Register* to regulate specific types of high-risk wells, such as large cesspools, motor vehicle wells, and industrial wells, located in source water protection areas for systems using groundwater. When finalized in 1999, this regulation will give states a new tool for source water protection efforts.
- **Support for Indian Tribes:** The problems facing public water systems located on Indian reservations are significant. Many of the systems face challenges related to their small size (75% of systems serve populations fewer than 500) and limited sources of revenue. Many of the tools discussed above include funding and provisions to address the special problems of these public water systems. In addition, the 1996 SDWA Amendments provided that 1.5% of the amount appropriated for the DWSRF program be made available to water systems on Tribal lands in the form of grants. This translated into \$30 million for fiscal years 1997 and 1998.

Helping Small Systems Provide Safe Drinking Water

Although they serve a small percentage of the nation's *population*, water *systems* serving fewer than 10,000 persons constitute the majority of all community drinking water systems. Small systems often do not have a full-time operator, and their limited customer base often makes compliance with public health standards difficult due to affordability problems. The 1996 Amendments created several new tools to help address the special needs of small systems.

- **List of Small System Compliance Technologies:** In August 1998 EPA published a list of alternative technologies that small systems may use to remove or treat regulated contaminants. These alternative technologies give small systems more flexibility in choosing the most cost-effective methods to meet drinking water standards.
- **Variances and Exemptions:** In August 1998, EPA revised its variance and exemption rule, which provides a framework to help small systems comply with drinking water standards. Variances allow a small system that cannot afford to comply with a drinking water standard to deviate from the standard under certain conditions, as long as the drinking water is still protective of public health. Exemptions allow a water system extra time to obtain needed financial assistance, develop an alternative source of water, engage in management or restructuring changes, or make any other effort needed to bring the system into compliance.
- **Technical Assistance:** EPA is now supporting a total of eight technology assistance centers, based at universities, to help small drinking water systems with training, technical assistance, and technology demonstrations. With grant support from EPA, university-based Environmental Finance Centers are assisting states in developing and implementing innovative programs to help small systems build their capacity. In addition, up to two percent of a state's DWSRF capitalization grant may be used to provide technical assistance to systems serving fewer than 10,000 persons, and the SDWA requires that at least 15% of the DWSRF be made available to small systems.

Focusing Safety Standards on the Most Serious Health Risks

Strengthening research to support development of regulations based on sound science is one of the most significant provisions in the 1996 Amendments. The first major products of that scientific focus were produced in 1998. These products demonstrate the principles of targeting and focusing research on high risk contaminants and expanding public involvement in the rulemaking process by enhancing public access to data.

- **The Contaminant Candidate List:** In February 1998, EPA published its Contaminant Candidate List (CCL), which is the strategic blueprint for future standards development and public health decisions. The CCL is a list of currently unregulated contaminants that are known or anticipated to occur in drinking water. The list will help EPA, states, and water systems focus their efforts on contaminants that pose the greatest risks to public health. Contaminants for priority drinking water research, occurrence monitoring, and guidance development, including health advisories, will be drawn from the CCL. EPA will also use this list to outline a plan of action, required by the year 2001, for making regulatory decisions on developing standards for five or more contaminants.
- **Strengthening Research:** EPA has expanded its research in occurrence studies, health effects, analytical methods, and treatment approaches to support its standard-setting priorities

under the CCL. In addition, as required by the 1996 Amendments, EPA has developed, and is carrying out, its long-term research plans for arsenic and the microbial and disinfectants/disinfection byproducts cluster of rules.

- **Microbial and Disinfectants/Disinfection Byproducts Rules:** Congress and the Administration agree that microbial contaminants in drinking water, such as *Cryptosporidium*, pose the greatest potential risk to human health. The 1996 Amendments required EPA to issue several rules to control these contaminants and the byproducts of chemicals used to control them. In late 1998, EPA will dramatically advance public health protection by finalizing the first set of these rules, the Interim Enhanced Surface Water Treatment Rule and the Stage I Disinfectants/Disinfection Byproducts Rule.

Exercising New Enforcement Authorities and Undertaking Compliance Assistance

The 1996 Amendments strengthened EPA and State enforcement and penalty authorities. In recognition of the fact that enforcement is an effective tool in returning systems to compliance and insuring that water systems which do not comply do not enjoy a competitive advantage over others that do, the Amendments streamlined the process for issuing federal administrative orders, raised the amount EPA could collect in administrative penalties, and required States as a condition of primacy to have administrative penalty authority. As with other provisions of the 1996 Amendments, EPA and the states are working to implement these provisions and will provide more detail in future reports.

EPA's current enforcement priorities focus on those regulations and contaminants which pose the greatest risk to public health, i.e., the microbiological regulations (Total Coliform Rule and Surface Water Treatment Rule), lead and copper, and other acute contaminants (e.g., nitrate).

In fiscal year 1996, the Agency issued 1039 notices of violation, 254 final administrative orders, 40 complaints for penalty, and 9 new civil referrals. In 1997, EPA issued 266 notices of violation, 392 federal administrative orders, 12 complaints for penalty, and 4 new civil referrals.

To complement its enforcement activities, EPA also undertakes compliance assistance to increase understanding of, and compliance with, drinking water requirements. The Agency conducted more than 3,180 compliance assistance activities, including on-site visits to public water systems and development and distribution of compliance assistance tools. The Agency is also developing a Compliance Assistance Center, the Local Government Environmental Assistance Network (LGEAN) which is designed to help local government officials stay abreast of the latest environmental requirements and technologies, including drinking water issues. LGEAN is coordinated by a number of partners, such as drinking water and governmental associations. The network will help governments disseminate information on drinking water to help water facilities treat water more effectively and will field questions on environmental compliance and assistance

information for state and local officials, inspectors, and regulators.

The box below lists EPA's major products in support of SDWA implementation.

Programs	1 st year (August 1996-97)	2 nd year (August 1997-98)	Future
Public Information/ Involvement	<ul style="list-style-type: none"> Expansion of National Drinking Water Advisory Council (NDWAC) 	<ul style="list-style-type: none"> Consumer Confidence Report Regulation Compliance Reports 	<ul style="list-style-type: none"> National Contaminant Occurrence Data Base Revised public notification Right-to-Know NDWAC Working Group
Tools for States and Water Systems	<ul style="list-style-type: none"> Drinking Water State Revolving Fund Guidelines Source Water Assessment and Protection Guidance Drinking Water Infrastructure Needs Survey Alternative Monitoring Guidance 	<ul style="list-style-type: none"> Information on Operator Certification Capacity Development Guidance Environmental Finance Centers Proposed Class V UIC Rule 	<ul style="list-style-type: none"> Operator Certification Guidelines Federal support of state source water assessment activities through Clean Water Action Plan Final Class V UIC Rule State ground water protection reports Local Governmental Environmental Assistance Network
Small System Needs	<ul style="list-style-type: none"> Treatment technologies list for Surface Water Treatment Rule 	<ul style="list-style-type: none"> Compliance technologies list Variance and Exemptions Rule Technology Assistance Centers 	<ul style="list-style-type: none"> NDWAC Small Systems Working Group
Risk-Based Standards Setting	<ul style="list-style-type: none"> Research plans for Microbial/Disinfection Byproducts and Arsenic 	<ul style="list-style-type: none"> Contaminant Candidate List 	<ul style="list-style-type: none"> National Contaminant Occurrence Data Base Unregulated Contaminant Monitoring Rule

IMPROVING THE DATA THAT DESCRIBES AMERICA'S DRINKING WATER

The nation needs reliable data in order to manage its drinking water program. It is of great importance to EPA and its partners to improve the quality and accuracy of drinking water data. EPA has collected data from States for approximately 20 years on violations of drinking water standards and stored them in an EPA data system that has recently been modernized and renamed the Safe Drinking Water Information System (SDWIS/FED). Portions of SDWIS/FED that are under development will better track compliance with existing and future regulations, track drinking water goals developed to meet the Government Performance and Results Act, and also make data recovery easier for the public. In preparing the compliance information described

below, it became clear that some SDWIS/FED data should be updated or checked for reliability. To ensure SDWIS/FED data reliability, EPA is undertaking a series of steps which are outlined in the recommendations described later in this report.

In addition to having information about actual violations of drinking water standards for treated drinking water, the nation also needs information on the occurrence of contaminants in our *sources* of drinking water. The SDWA Amendments of 1996 mandated that EPA prepare a National Contaminant Occurrence Database (NCOD) by 1999 that will contain information about the pollutants found in sources of drinking water. NCOD will draw on other databases from both inside EPA and from our partners such as the U.S. Geological Survey, and will also include information from forthcoming state and Tribal source water assessments. The database will give both managers and the public information on the quality of water which is subsequently treated to become our drinking water.

The planned improvements to violations data in SDWIS/FED as well as the new data available in 1999 through the NCOD will give both the public and the drinking water community a better picture of the quality of our drinking water.

Recommendations

The SDWA Amendments of 1996 require that the Administrator make "recommendations concerning the resources needed to improve compliance" within the national compliance report. This report makes general recommendations as to where states and EPA should direct their efforts, based on existing resource levels and appropriations, to improve compliance.

States and EPA should work together to address the most significant findings identified in this report:

States and EPA should work together to address violations of significant monitoring and reporting requirements.

- For *large* community water systems, actions should address all rules. Failure by these systems to monitor can mask public health problems that affect many people and, as a result, formal enforcement should be an integral part of any action taken.
- For *small* and *medium* community water systems, actions should focus primarily on the Lead and Copper Rule, Total Coliform Rule and the Nitrate Rule. This strategy should include compliance assistance and enforcement, where appropriate. The strategy should also focus on the Surface Water Treatment Rule because violations indicate an increased risk from microbiological contamination.

States and EPA should work together to address violations of MCL and treatment technique requirements.

- For *large* community water systems, actions should address all rules, with an emphasis on the Total Coliform Rule, Surface Water Treatment Rule and the Lead and Copper Rule. Formal enforcement is especially appropriate for large water systems, particularly those failing to install or upgrade filtration treatment as required by the Surface Water Treatment Rule, and for facilities with continuing or repeated violations.
- For *small* and *medium* size community water systems, actions should focus on the Total Coliform Rule and Surface Water Treatment Rule. All available tools should be considered when responding to violations, in order to address the particular capacity development needs of these systems. Technical assistance should be made available to ensure that systems can return to, and remain in, compliance. While compliance assistance is often adequate to ensure long-term compliance, when a system does not respond to assistance, formal enforcement should be used.

States and EPA should work together to address violations at non-community water systems.

- States and EPA should identify the reasons for significant monitoring and reporting violations at non-community systems and take appropriate action. In particular, attention should focus on the Total Coliform, Lead and Copper, and Nitrate Rules for non-transient non-community water systems; and Total Coliform and Nitrate Rules for transient non-community water systems.
- Most non-transient and transient non-community water systems are small and face problems that are unique to small systems. EPA and states should take an approach that addresses the special needs of these systems, including compliance assistance and enforcement, where appropriate.

EPA should take action to improve compliance of PWSs on Indian reservations.

- EPA should work cooperatively with water systems on Indian reservations to improve compliance with monitoring and reporting requirements, particularly for Total Coliform Rule and chemical contaminant requirements. This can be accomplished through compliance assistance such as increasing EPA's field presence, conducting more frequent sanitary surveys and providing technical assistance, and enforcement, as appropriate.
- EPA should improve its collection and maintenance of compliance data for PWSs on Indian reservations.

EPA and states should work cooperatively to improve the quality of compliance data.

- **Further define the issue:** EPA should work closely with states and utilities to define the data quality issue in detail. EPA will hold several stakeholder meetings across the country, and convene a special focus group to make recommendations. This group will work with ongoing groups and efforts such as the Association of State Drinking Water Administrators/EPA Data Management Steering Committee, the OECA enforcement systems reengineering efforts, and the National Drinking Water Advisory Council Right-to-Know workgroup.
- **Ensure seamless data transfer to the Federal data system:** EPA will increase efforts to make it easier to use drinking water information systems, and processes to transfer data to them electronically. For the national-level SDWIS/FED, EPA will simplify both data entry and retrieval, and public access. For States and Tribes, EPA will accelerate development of the core modules of SDWIS/STATE, and increase electronic data transfer for those States that will continue to use their own data systems.
- **Improve SDWIS data quality:** EPA and States need to work together to improve the quality of data in SDWIS and in individual state systems. In this effort, EPA and States can jointly develop quality management plans for SDWIS data. We can also take steps to improve the quality of data monitoring and reporting at all levels – utility, laboratory, State, EPA Regions, and EPA Headquarters. These steps will include more frequent verification of data at all steps of the process, vigorous followup of findings from the verification efforts, and increased training in and accountability for system use and data quality activities.
- **Include compliance data in the effort to integrate drinking water information:** EPA is working to provide to managers and the public a comprehensive picture of drinking water quality, including both compliance and source water quality information. This effort will integrate drinking water source information from the developing National Contaminant Occurrence Data Base (which will access multiple data bases of EPA, the U.S. Geological Survey, and others on ambient water quality) as well as water quality in public water systems. As more reliable SDWIS data is generated in the future, EPA will incorporate that data into this comprehensive effort to portray drinking water quality.

Future Direction

This report on 1996 data is the first in an annual series of reports presenting drinking water compliance data and a national analysis of compliance, as well as recommendations to improve PWS compliance. The report shows that there is a need for improvements in both compliance and reporting of the data describing compliance. Compliance with drinking water regulations is one of the primary goals for EPA under the Government Performance and Results Act, and EPA has already initiated activities to address many of the findings and recommendations in the report. EPA will work with states to address the recommendations

and will use these reports to establish a baseline against which we will monitor progress.

In addition, States and EPA need to continue to aggressively implement the SDWA Amendments of 1996, including development and implementation of new regulations, source water protection activities, capacity development activities, operator certification, and full implementation of the State Revolving Fund. These activities will result in improvements in PWSs and ultimately in the quality of the drinking water provided to the public. Also, EPA and the States need to insure implementation of and compliance with the consumer confidence regulations as the centerpiece of the right-to-know provisions of the SDWA. It is critical that these rules be implemented.

Because this first report is based on calendar year 1996 data, the data did not reflect improvements to the drinking water program that are being made as a result of the many activities initiated following enactment of the 1996 SDWA Amendments. A vital lesson learned during the 12 years following passage of the earlier 1986 SDWA is that safe drinking water must be achieved by a multi-action approach that includes: providing for public information and involvement; providing tools to states, Tribes, and water systems to help them supply safe water; paying special attention to the needs of small systems; risk-based decision-making to provide the best safety standards; and providing compliance assistance and taking enforcement actions where violations occur. The new tools provided by the 1996 Amendments will, in time, help improve the quality of the public's drinking water and compliance at PWSs, including PWSs located on Indian reservations. The many actions EPA and its partners have undertaken in the first two years of implementation of the 1996 SDWA Amendments will bear fruit in providing better information about drinking water quality and reducing the number of violations of drinking water standards. Future reports will track that progress, to the benefit of all Americans.